

The Behavior of Ants

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Among all species of insects, ants are known for their earnest life style according to one story by Aesop, "The Ant and the Grasshopper." Since we can see processions and nests everywhere, ants are general creatures in our lives. However, we generally do not care about their behavior. For example, some questions are difficult for us to answer: How do ants live together in a nest? How do they distinguish company from others? How can they make processions with accuracy? Some biologists and entomologists have investigated these questions and found the following answers.

The social organization of ants is very remarkable. Each of their colonies or communities has a queen ant that produces a large number of eggs that are to be the next generations. Only the queen can lay eggs in a colony. When these offspring hatch out from the pupae and grow up, all male ants have wings, while few females have them. Only a few winged females can be the next queens, or the other female ants become workers and soldiers. Therefore, only females control a colony and male ants just wait for the mating season called "The Marriage Flight" (Goetsch, 1957). When a future queen grows up, it flies out from its nest with all young male ants. The queen mates with just one of them in the air, and all males die after the Marriage Flight. After mating, the queen casts off its wings and looks for a new colony where it is welcomed. Settling in the new nest, a queen also lays many eggs to produce the next generation. The destiny of an ant depends on the moment of its birth; that is to say, each ant has an inborn function and never changes into other roles. Thus, ants have clear class distinctions which help them to maintain the social order.

Because we cannot distinguish one ant from another, it is mysterious for us that ants are able to recognize their companies. No ants have ears and some of them are blind, but they have a great sense of smell. They can smell with their antennae on their heads. Because each colony has a different smell from the other, even though they belong to the same species, they can recognize their companies and enemies. In other words, if their antennae do not work properly, they may live with their enemies.

The accurate procession of ants also depends on their sense of smell. They can circulate between their nest and food without straggling. This phenomenon results from their pheromone, a chemical produced by an animal or an insect (Goetsch, 1957). An ant moves tempted by another's pheromone, and it, in turn, secretes pheromone while moving. Therefore, the more ants circulate the route, the stronger pheromones remain on the way between the food and the nest. This is the way they make a perfect procession.

In conclusion, ants are clearly distinguished in the order of queen, male, worker and soldier to produce offspring and keep their social order. Also, their great sense of smell helps them to communicate with companies and follow their processions without getting lost. Although ants are very small insects, they have high intelligence and advanced social system in their lives.

Reference

Goetsch, W. (1957). *The ants*. Ann Arbor, MI: University of Michigan Press.